Section-A
Multiple Choice Questions (MCQ's)

Q-01: Choose the correct answer for each from the given option.

(i) $\begin{bmatrix} 5 & 0 \\ 0 & 7 \end{bmatrix}$ is a ________ matrics.

(a) Digonal (b) Scalar (c)Rectangular (d)Column

(ii) The mean of 30 observations is 100, their sum is ____

(a) 900 (b) 1000 (c) 1500 (d)3000

(iii) The polynomial expression $-\frac{1}{4}+2x+5$ w.r.t the terms is called ____

(a) Monomial (b) Bionomial (c) Trinomial (d)None

(iv) Log a 1 = ________

(a) 1 (b) a (c) 0 (d)10

(v) An inscribed angleof a major arc is ________

(a) Acute (b) Obtuse (c) 90° (d) None of these

(vi) $x^3y^6 + 125 =$ ______

(a) $(xy^2-5)(x^2y^4+5xy^2+25)$ (b) $(xy^2+5)(x^2y^4+5xy^2+25)$

(c) $(xy^2+5)(x^2y^4+5xy^2-25)$ (d) $(xy^2-5)(x^2y^4-5xy^2+25)$

(vii) The sub- duplicate ratio of 4 : 9 is ______

(a) 16:81 (b) 2:3 (c) Both (a) & (b)(d) None of these

(viii) Cost 60° = ______

(a) $\frac{1}{\sqrt{3}}$ (b) $\sqrt{3}$ (c) $\frac{\sqrt{3}}{2}$ (d) 1

(ix) $(A \cup B)^1 =$ __________

(a) $(A\cap B)^1$ (b) $A^1\cup B^1$ (c) $A^1\cap B^1$ (d) None of these

(x) An angle with measure greater than 90° is called _____ angle.

(a) Right (b) Congruent (c) Acute (d) Obtuse

(xi) x + 1 = 0, is a _______ equation.

(a) Quadratic (b) Linear (c) Non-linear (d) Irrational

(xii) In triangle, ABC, m∠B = 90° then $a^2 + c^2 =$ ______

(a) a^2 (b) $-a^2$ (c) $-b^2$ (d) None

(xiii) $\sqrt[n]{x^m} =$ ______

(a) x^{mn} (b) $x^{n/m}$ (c) x^{m+n} (d) $x^{m/n}$

(xiv) Line segment joining the vertex and to the mid-point of the opposite side of triangle is called___

(a) Altitude (b) Hypotenuse (c) Median (d) None of these

(xv) The characteristic of log 0.0000225 is ______

(a) 4 (b) 5 (c) -4 (d) -5

(xvi) $(a + b)^2 + (a - b)^2 =$ ______

(a) 4ab (b) -4ab (c) $2(a^2+b^2)$ (d) $2(a+b)^2$

(xvii) The order of $\begin{bmatrix} a \\ b \end{bmatrix}$ is ____

(a) 2 x 1 (b) 1 x 2 (c) 1 x 1 (d) 2 x 2

(xviii) (3, -2) is in ________ quadrant.

(a) First (b) Second (c) Third (d) Fourth

(xix) If $A = \begin{bmatrix} 6 & 4 \\ 3 & 2 \end{bmatrix}$, then |A| = ______

(a) 6 (b) 4 (c) 2 (d) 0

(xx) |-5|, absolute value of -5 is ________

(a) -5 (b) ± 5 (c) 5 (d) None